

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003346**Date Inspected:** 18-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

CWI Name:	Jiang Jian Fei	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No N/A	
		Delayed / Cancelled:	Yes No N/A	
Bridge No:	34-0006	Component:	OBG & Tower	

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present observe production welding and perform Ultrasonic Testing (UT) of Orthotropic Box Girder (OBG) and Tower components, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Tower Heavy Machinery Shop Bay 2

The Caltrans QA Inspector observed ZPMC welder Ms. Xia Yongliu performing Submerged Arc Welding (SAW) in the 1G position on Tower Skin Plate C Complete Joint Penetration (CJP) splice weld ESD1-SA77-8B in the 1G position. The following parameters were recorded from weld NSD1-SA370-8B amperage 210, volts 25.9, travel speed of 120 mm/min., with a heat input of 2.71 kJ/mm. The above mentioned welding appeared to be in conformance with the posted welding procedure specification, WPS-B-T2233-B-U3F. The Caltrans QA observed ZPMC has several Tower diaphragm flange plates in various stages of fabrication ranging from weld bevel prep, bending and trimming to achieve proper fit up. Caltrans QA Inspector observed numerous OBG longitudinal stiffener plates in various stages of fabrication from bevel prep, CJP Flux Cored Welding and grinding.

The Caltrans QA performed Ultrasonic Testing Verification of Tower Diaphragm CJP welds SSD1-SA248- 1A (1B), 2A (2B) and WSD1-SA309-11A (11B) and 12A (12B). Testing of the 75 mm diaphragm CJP weld was performed from face A with a 70 degree transducer for the bottom quarter and middle half in the first leg. Testing of top quarter was performed with a 45 degree transducer in the second leg. Diaphragm welds tested appeared to meet the requirements of AWS D1.5 (2002) table 6.3.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Sub Assembly Bay # 7

The Caltrans QA Inspector performed Ultrasonic verification of Floor Beam repair welds FB034-001-122 (R1) and FB011-006-043 (R1). Ultrasonic testing was performed with a 70 degree transducer. Repair areas appeared to meet the requirements of AWS D1.5 (2002) table 6.3. Please see the UT report TL-6027 generated on this date for the above mentioned UT testing on this date. Please see the attached photo of FB011-006-043 shown below



Summary of Conversations:

No relevant conversations occurred this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	Viars, Larry	Quality Assurance Inspector
Reviewed By:	Lanz, Joe	QA Reviewer
